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DTADFIAGRAVAAMTRYRQQLLPPLFSALMKYSDIHEYSWAAPGHQGGVGFTKTPAGRFY 178 DTPEFVARLIIREAKAYLDSLPPPFFKALTHYAADGSYSWHCPGHSGGVAFLKSPVGQMF 184

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RADIA-RESULT RADIA-REAL RADIA-REA
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ECOLI STANDARD; PRT; 755 AA.

ADIA ECOLI STANDARD; PRT; 755 AA.

P28629; P78138;

01-DEC-1992 (Rel. 24, Created)

01-DEC-1992 (Rel. 24, Last sequence update)

25-JAN-2005 (Rel. 46, Last annotation update)

25-JAN-2005 (Rel. 46, Last annotation update)

Biodegradative arginine decarboxylase (EC 4.1.1.19)

Name=adia; Synonyms=adi; OrderedLocusNames=b4117;

Escherichia coli.
SEQUENCE FROM N.A.
STRAIN=K12 / MG1655;
MEDLINE=95334362; PubMed=7610040;
                                                                                                          Stim K.P., Bennett G.N.;
"Nucleotide sequence of the adi gene, which encodes the acid-induced arginine decarboxylase of Escherichia coll. J. Bacteriol. 175:1221-1234(1993).
                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                       Enterobacteriaceae;
NCBI_TaxID=562;
                                                                                                                                                                                                                                                                                                                                                                           Bacteria; Proteobacteria;
                                                                                                                                                                                                               MEDLINE=93186686; PubMed=8383109;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DFYGDYHAIGADRPRCKESMVFSTQSTHKLLAGLSQASQILVQDADQNRLDRDVFNEAYL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TLYNTLCSFKRHYDANTPLAQVMPELVEQYPDTYANMGIHDLGDTMFAWLKENNPGARLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IKVSILAPGMGEDGEL-EETGVPAALVTAWLGRHGIVPTRTTDFQIMFLFSMGVTRGKWG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IKATIITPGLDVEGDFSDEFGIPAAIVTKYLAEHGVIVEKTGLYSFFIMFTIGITKGRWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MHATTSPLYAICASNDVAVSMMDGNSGLSLTQEVIDEAVDFRQAMARLYKEFAADGSWFF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -NKVIVNYLKFAREFNEKFPGFETDNHGLVKQIVDGKAVYYVDCVK
                                                                                                                                                                                                                                                                                                                                                   ceria; Gammaproteobacteria; Enterobacteriales;
Escherichia.
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"Chemical properties of Escherichia coli lysine decarboxylase including a segment of its pyridoxal 5'-phosphate binding site Biochemistry 13:670-676 (1974).

-I- FUNCTION: ADC can be found in two forms: biodegradative an biosynthetic. The biodegradative form may play a role in regulating pH by consuming proteins.

-I- CATALYTIC ACTIVITY: L-arginine = agmatine + CO(2).

-I- COPACTOR: Pyridoxal phosphate.

-I- SUBCILIULAR LOCATION: Cytoplasmic.

-I- SUBCILIULAR LOCATION: Cytoplasmic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIINE=88137961; PubMed=2830169; DOI=10.1016/0378-1119(87)90333-7; Webster C., Kempsell K., Booth I., Busby S.; "Organisation of the regulatory region of the Escherichia colimelibiose operon.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blattner F.R.;
Blattner F.R.;
"Analysis of the Escherichia coli genome region from 92.8 through 100 minutes.";
""" Paic Acids Res. 23:2105-2119(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sabo D.L.,
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                                                                                                                                                                                                                                                                                                                                      tities requires a license agreement (S send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                    s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way ified and this statement is not removed. Usage by and for commercial ities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: Belongs to the Orn/Lys/Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                     family.
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Query Best L Matches InterPro; IPR011006; Chey_like.
InterPro; IPR0100310; Decarbxylsel.
InterPro; IPR000316; Decarbxylse_C.
InterPro; IPR0010308; OKR_DC_1 N.
InterPro; IPR011193; Orn_decarb.
Pfam; PP01276; OKR_DC_1, 1.
Pfam; PP03701; OKR_DC_1, 1.
Pfam; PF03701; OKR_DC_1, 1.
Pfam; PF03701; OKR_DC_1, 1.
PISSF; PIRSF009393; OKR_DC_1, 1.
PROSITE; PS00703; OKR_DC_1, 1. CONFLICT SEQUENCE EMBL; M93362; AAA23481.1; EMBL; U14003; AAA97017.1; EMBL; U00096; AAC77078.1; EMBL; M18425; -; NOT_ANNOT Complete proteome; Deca Pyridoxal phosphate. BINDING 386 386 EchoBASE; EB1464; -EcoGene; EG11501; adiA PIR; S56346; S56346. Local Match P43099; 1C4K. h 34.9%; Similarity 37.1%; 84; Conservative 19 proteome; Decarboxylase; Direct 755 A A A97017.1; ALT_INIT. C77078.1; ALT_INIT. NOT_ANNOTATED_CDS. 84425 75 MW; Pyridoxal phosphate.
L -> P (in Ref. 3).
; OFCB715144649F8F C Pred. No. 7.8 7; Mismatches Score 1378.5; DB 1; Pred. No. 7.8e-87; protein 284; CRC64; sequencing; Indels Length 755; 41; Gaps

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VLIVESEFLHQDTWVGNAVERLADALSQQNVTVIKSTSFDD--GFAILSSNEAIDCLMFS IVIIDEDFRSENS-SGLGIRVLAKAIEDEGLEVLGVTSYGDLTSFAQQQSRASAFILSID

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RESULT

OCC. 96

OCC.
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SEQUENCE FROM N.A.

STRAIN-CDPH;

STRAIN-CDPH;

Chan Y.C., Blaschek H.P.;

Chan Y.C., Blaschek H.P.;

Chan Y.C., Blaschek H.P.;

Submitted (FEB-2003) to the EMBL/GenBank/DDB Submitted (FEB-2003) to the EMBL/GenBank/DDB Submitted (FEB-2003) To the EMBL/GenBank/DDB Submitted (FEB-2003); Ficationary ITEA.

GO; GO:0016831; Ficationary Iyase activity; IEA.

GO; GO:0003824; Ficationary Iyase activity; IEA.

GO; GO:0006520; Fication acid metabolism; IEA.

InterPro; IPR01006286; Chey like.

InterPro; IPR000286; Decarbxylse1.

InterPro; IPR000286; Decarbxylse_C.
                                                                                                                                                                                                                                                                                                                                                            Q6XJ52 PRELIMINARY, Q6XJ52; Q6XJ52; Q6XJ52; Q6XJ52; Q7UL-2004 (TrEMBLrel. Q5_JUL-2004 (TrEMBLrel. Arginine decarboxylase. Name=adi;
                                                                                                                                                                                                                                                       Shigella boydii.
Bacteria; Proteobacteria; Gammaproteobacteria;
Enterobacteriaceae; Shigella.
NCBI_TaxID=621;
[1]
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InterPro; IPR011193; Orn_decarb.
Pfam; pP01276; OKR_DC_1_C; 1.
Pfam; pP03701; OKR_DC_1_C; 1.
Pfam; pP03709; OKR_DC_1_N; 1.
PIASF; PIRSF009393; OTN_decarb; 1
PROSITE; PS00703; OKR_DC_1; 1.
SEQUENCE 756 AA; 84690 MM; C2
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37.1%; Pred. No. 9.2e-87;
tive 157; Mismatches 284; Indexs
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